

Remarks

Applicants thank the Examiner for carefully considering the subject application.

Preliminary Matters

The Office action first objects to Figure 4A. Applicants submit herewith a corrected Figure 4A. The Office action also objects to the abstract. Applicants hereby amend the abstract as suggested.

Finally, the Office action objects to line 3 of claim 5 as lacking antecedent basis. Claim 5 has been amended to refer to “an engine speed” to overcome this issue. Applicants submit that this amendment has no effect on the scope of the claims.

Discussion of Rejections under 35 U.S.C. §§102 and 103.

The Office action first applies Chan (U.S. 5,537,894) to claim 5. Applicants respectfully submit that Chan fails to show that which is alleged. Specifically, the Office action asserts:

Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Chan. Chan teaches a method for controlling an engine coupled to a transmission having an input speed IS and an output speed OS, the method comprising: during a tip-out condition, controlling an engine speed ES to a synchronous speed (Fig. 6A), where the synchronous speed is based on a transmission state and the transmission output speed OS so that transmission input speed is at, or slightly below, the transmission output speed times the current gear ratio GRT of the transmission; and when positive powertrain output torque again applied, providing said power train output torque without delay.

However, Applicants have reviewed Chan and can find nothing in Figure 6A or the corresponding description that mentions operation during a tip-out condition. Further, Applicants can find no identification of a tip-out condition, or taking any action in response

thereto. Rather, Figure 6A of Chan appears to relate to a fault diagnostic approach that detects when a gear of the transmission is not properly engaged. If so, the routine adjusts the transmission input speed to be first above, then below, the synchronous speed. See Col. 11, lines 25-35. Thus, this operation appears to have nothing to do with a driver tip-out condition. Further, it has nothing to do with providing improved response with positive torque is again applied, such as when the driver tips back in. As such, the rejection based on Chan should be withdrawn.

Continuing with the Office action, it next applies Wakahara to claims 5-6. Specifically, the Office action states:

With regard to claim 5, Wakahara teaches a method for controlling an engine coupled to a transmission having an input speed N_i and an output speed V , the method comprising: during a tip-out condition, controlling an engine speed N_e to a synchronous speed S_1 , where the synchronous speed S_2 is based on a transmission state and the transmission output speed so that transmission input speed is at, or slightly below, the transmission output speed times the current gear ratio of the transmission (which is inherently true, since when the gear ratio is locked in, the transmission input speed is equal to the transmission output speed times the gear ratio); and when positive powertrain output torque again applied S_5 , providing said power train output torque without delay.

Thus, it appears the Office action assumes that the method of Wakahara is based on operation with the gear ratio locked in, and thus operates with the transmission input speed locked to the transmission output speed times the current gear ratio.

Assuming this is true, it highlights the differences between Wakahara and the example approach of claim 5. Specifically, the approach of claim 5 is premised upon operation in which the transmission input speed is not locked to the synchronous speed (e.g., it is adjustable from this value). Thus, that is why claim 5 specifies “controlling an engine speed to a synchronous speed ... so that transmission input speed is at, or slightly below, the transmission output speed

times the current gear ratio of the transmission.” To further clarify this point, Applicants have amended claim 1 to further specify that “the transmission input speed is adjustable from the transmission output speed times the current gear ratio of the transmission.” The specification describes various examples of such operation, such as when the engine does not provide engine braking (because the transmission input speed is not fixed to the output speed times the gear ratio) or when performing a manual pull in from neutral. See, for example, pages 9-10 of the application. As such, the rejection based on Wakahara should be withdrawn.

Finally, Applicants have added various new claims.

Based on the foregoing comments, the above-identified application is believed to be in condition for allowance, and such allowance is courteously solicited. If any further amendment is necessary to advance prosecution and place this case in allowable condition, the Examiner is courteously requested to contact the undersigned by fax or telephone at the number listed below.

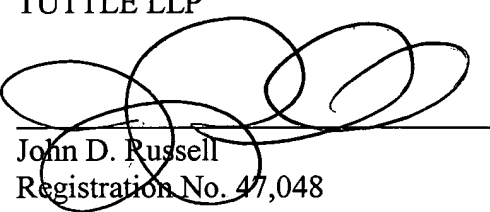
Please charge any cost incurred in the filing of this Amendment, along with any other costs, to Deposit Account No. 06-1510. If there are insufficient funds in this account, please charge the fees to Deposit Account No. 06-1505. A duplicate copy of this sheet is enclosed.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being sent via first class mail addressed to Mail Stop AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on November 17, 2005.


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Amendments to the Drawings

Attached is a replacement sheet of drawings for Figure 4A.